

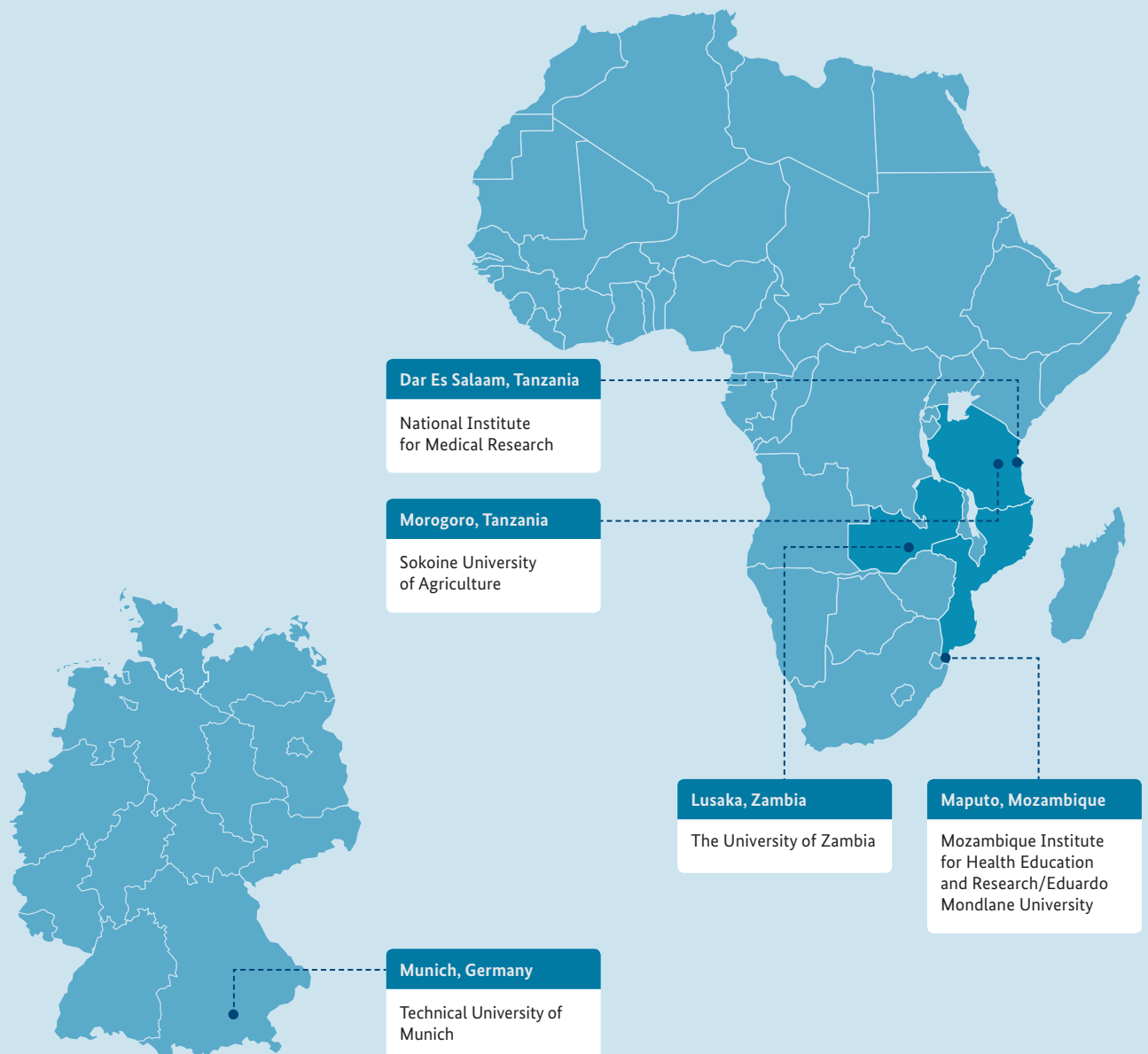


# CYSTINET-Africa

## Cysticercosis Network of Sub-Saharan Africa

*Taenia solium* (neuro)cysticercosis/taeniosis (TSCT) represents an emerging, potentially eradicable, neglected zoonotic disease complex caused by the pork tapeworm *T. solium* that affects human and animal health alike, as well as community livelihood in endemic areas of sub-Saharan Africa (One Health concept). Therefore, the overall aim of the CYSTINET-Africa consortium is to fill gaps on the way to control and elimination of TSCT including neurocysticercosis (NCC) by investing strongly in research, capacity building and networking with the potential for translation to other zoonotic diseases.

### CYSTINET-Africa – Project Partners





Free-roaming pig husbandry practices in the southern province of Zambia

TSCT represents a poverty-related, neglected zoonotic disease complex with a strong One Health aspect, which is endemic throughout sub-Saharan Africa. Human cysticercosis clinically manifests itself mainly as NCC, which is considered the most frequent preventable cause of epilepsy in sub-Saharan Africa, where approximately 6 million people suffer from NCC. Owing to globalisation and the migration of infected people, NCC is of increasing concern in as yet non-endemic European countries.

On the way to effective and sustainable disease control important gaps need to be closed. These gaps pertain, on the one hand, to human health, for example, the lack of precise data of the epidemiology of NCC and its pathomechanisms, the lack of diagnostic facilities and best standard of care including treatment with locally available

means and, on the other hand, to disease prevention, which not only includes animal health but also educating affected communities. An additional priority component for building a framework for control and elimination of TSCT is to strengthen health systems in poor endemic countries. This will enable them to better detect and manage cases as there is currently a lack of technical and policy guidance on best practices for management of TSCT/NCC. Therefore, the suggested CYSTINET-Africa approach aims to bridge the above gaps by a) applying biomedical research to various areas of TSCT, including the evaluation of epidemiological and clinical characteristics of TSCT, basic research into human immunology relevant for appropriate disease management including patients with HIV/AIDS and the establishment of an experimental *T. solium* pig model, b) implementing preventative strategies through the development of a low-cost health education package for TSCT/NCC and c) establishing a consortium to facilitate joint research efforts with an envisaged impact, not only on data collection and dissemination, but also on capacity building through a strong IT component comprising four African and two German partners.

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